



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/479,648	01/07/2000	RONALD S. STEELMAN	54655USA1B/009	3344

32692 7590 09/23/2003

3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427

EXAMINER

KNABLE, GEOFFREY L

ART UNIT	PAPER NUMBER
----------	--------------

1733

DATE MAILED: 09/23/2003

24

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/479,648

Applicant(s)

STEELMAN ET AL.

Examiner

Geoffrey L. Knable

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-31, 34-36, 38-40 and 57-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-31, 34-36, 38-40 and 57-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 29-31, 34-36, 38-40 and 57-61 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The original disclosure provided a clear, deliberate and unambiguous special definition for "Heat Neutral Pressure Source" – namely the paragraph at page 5, lines 17-21 which clearly indicates that "For purposes of this invention, a "Heat Neutral Pressure Source" is a ...," this being the definition that was given to this phrase in interpreting the claims. In the latest response, however, the arguments center on features described in the specification in subsequent paragraphs of the specification (particularly page 5, lines 22+). These features however were not clearly described as part of the clear, precise definition of the "Heat Neutral Pressure Source" in the original disclosure and thus are not considered to further limit the claims. However, since there seems to now be some contradiction between what was considered a clear original definition for the "Heat Neutral Pressure Source" and what is now urged to be the definition, a new ambiguity is presented by applicant's response. In other words, it now is not clear what the scope of the "Heat Neutral Pressure Source" is. If page 5, lines 22+ are to be read into the claims as limitations, how is one to determine what else is to be read into the claims? Again, the claims must be read consistent with the deliberate and precise definition given to the claim phrase and not additional (and imprecise) other parts of the specification. Note also that if one reads the part of the specification urged

Art Unit: 1733

by applicant into the claims, namely the reference to “not appreciably conduct heat...,” the claims would then also be indefinite for the reason that the scope of protection afforded by “not appreciably conduct heat” is not clear and definite. In other words, the scope of protection afforded by the requirement for “not appreciably conduct heat” cannot be readily ascertained as one does not know what is and is not “appreciable” conduction.

In summary, the claimed use of the term “Heat Neutral Pressure Source,” prior to the latest response, was considered to be adequately clear and definite when read in light of the clear, deliberate and precise definition presented at page 5, lines 17-21 of the specification. The latest response, in urging that additional features are to read into the claims (these additional features themselves also being indefinite), now presents significant potential confusion in determining what is meant by “Heat Neutral Pressure Source”.

3. Claims 29-31, 34-36, 40, 57-59 and 61 are rejected under 35 U.S.C. 102(a/b/e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the admitted state of the prior art or Peacock et al. (US 5,800,919) as applied in the last office action.

4. Claims 38 and 57-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the prior art or Peacock et al. (US 5,800,919) as applied above, and further in view of Preisler (US 3,861,988) and/or Coe (US 754,403) and/or Sadtler (US 1,672,093) as applied in the last office action.

5. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the prior art or Peacock et al. (US 5,800,919) as applied above, and further in view of Moore (US 1,895,045) and/or Finke (US 4,261,783) as applied in the last office action.

6. Claim 30 is rejected under 35 U.S.C. 102(b) as being anticipated by Alfter et al. (US 3,962,016) or Boyd et al. (US 4,511,425) or Werstlein (US 3,853,669) as applied in the last office action.

7. Applicant's arguments filed July 2, 2003 have been fully considered but they are not persuasive.

Applicant first urges that there is no teaching that the rivet brush "does not appreciably conduct heat either to or from the surface of the film as the film is applied under pressure to a surface on a substrate, preferably having a Thermal Conductivity of less than 1.8 BTU/hr-in-ft²-°F, which is one of the characteristics of a Heat Neutral Pressure Source of the present invention." This argument has been carefully considered but again, the claimed requirement for a "Heat Neutral Pressure Source", read in light of the specification, has been interpreted to require in essence that the pressure source not adhere to a softened film during application¹. Importantly, note that the original disclosure (page 5) defines the Heat Neutral Pressure source as being "a pressure source that has thermal conductivity characteristics and surface characteristics

¹ Note also again as set forth in the last office action that although there is mention in the specification of the pressure source not adhering to the film "when nearly melted", when read in light of the specification as a whole, this has been read as requiring no adherence to a "softened" film, it being noted that the specification indicates that heating to the softening point is heating "in accordance with the method of the present invention". Further, it should be noted that there is insufficient detail provided in the original disclosure to limit the state of the film to anything beyond simply heat softened.

Art Unit: 1733

at the point of contact of the film such that the film, when nearly melted, will not adhere to the Heat Neutral Pressure Source during application in accordance with the method of the present invention to a surface.” There is no clear indication in the original disclosure that other parts of the specification are to be read into the claims as well. Further, it is again submitted to be entirely reasonable to consider that a rivet brush or squeegee that suitably and effectively can press a softened film (and thus presumably does not stick thereto) can be said to be entirely consistent with this definition. Again, as noted in the last office action, although the reference and admitted prior art do not explicitly indicate whether the tool sticks to the softened film, it is considered implicit that the tool used (e.g. rivet brush or squeegee) would not stick to the softened film as if it did it would obviously not effectively function in the described methods, i.e. in appropriately pressing the film. In any event, even if it were not considered implicit, it certainly would have been obvious for the artisan to select and utilize a tool to press the softened film that does not also stick to the softened film during pressing for the obvious and readily apparent advantage of avoiding film damage as well as tool fouling during the application process – only the expected results would therefore be achieved.

With respect to the specific conductivity characteristics, and particularly the specific numerical ranges thereof, it is not considered that the broad requirement for a Heat Neutral Pressure Source alone defines specific features of the thermal conductivity beyond simply that it cooperate in helping to avoid sticking to the softened film. This however is considered to again be an implicit or in any event certainly obvious feature of

the prior art or known application devices and applicant has provided no conclusive showing or convincing argument to the contrary.

With respect to claim 57 (dependent claim 37 previously also setting forth this requirement having been cancelled) setting an upper limit on the thermal conductivity, the examiner took the position that the air gaps (between bristles) present in a typical rivet brush would be expected to provide a relatively low thermal conductivity sufficient to teach or render obvious values as claimed, the burden properly shifting to applicant to establish otherwise. Responsive thereto, applicant has argued that the thermal conductivity is not taught and "Applicants assert that the thermal conductivity of a Heat Neutral Pressure Source of claim 57 is not inherent in the rivet brush of Peacock et al." First, it should be stressed that the rejection is over either the admitted prior art or Peacock et al., not just Peacock et al. In any event, it is assumed that applicant is urging that such would not be satisfied for either the admitted prior art or the reference tools. It is further urged that the examiner has not provided any fact or technical reasoning supporting the assertion that the brush has the thermal conductivity recited in claim 57. This is not agreed with and in fact these arguments raise some question as to whether applicant is stating for the record that a prior art "rivet brush" does not fall under the claimed upper limit on conductivity (it being assumed that assignee possesses and perhaps even sells these brushes and thus presumably could be making this assertion) or whether it is simply being urged that the examiner has no reasoning supporting the rejection. It would seem from the clear statement that "Applicants assert that the thermal conductivity of a Heat Neutral Pressure Source of claim 57 is not inherent in the

Art Unit: 1733

rivet brush of Peacock et al.” that it is being stated for the record that such prior art rivet brushes do not fall under the claimed upper limit. The further argument that the examiner has presented no reasoning etc. however casts some doubt on applicant’s position in this regard. Clarification is required. Further, it is again submitted that although the prior art rivet brushes were not characterized in terms of conductivity, the examiner has provided sufficient technical reasoning to support an expectation that the claimed conductivity would be satisfied or obvious – note again that a brush is clearly and necessarily inclusive of significant air gaps between bristles, such substantial air gaps being expected to provide a relatively low thermal conductivity sufficient to teach or render obvious values as claimed. In other words, as is well known to the ordinary artisan, entrapped air is considered to be a very effective insulator and would be expected to significantly reduce the thermal conductivity of a brush and applicant has not conclusively or clearly established to the contrary (assuming it is not being urged for the record that such prior art rivet brushes actually have a higher thermal conductivity).

It is also argued that a tool that does not stick to a softened film is not explicitly recited in any of the claims. Again, however, the examiner has given what is believed to be the most reasonable interpretation to the claims consistent with the original disclosure at page 5, lines 17-21 such that the claimed requirement for a “Heat Neutral Pressure Source” has been read as explicitly requiring this. Applicant’s argument in this regard is therefore unconvincing. It is then urged that not sticking to a softened film is “not the exclusive characteristic of the Heat Neutral Pressure Source” of the claims. From this argument, applicant seems to be acknowledging that the non-sticking is a

Art Unit: 1733

requirement of the claims but that other features are required. Again, however a reading of the claims in light of the specification (page 5, lines 17-21) is not considered to require significant features beyond what is shown or obvious from the prior art tools. In other words, although the specification alludes to the "conductivity characteristics" and "surface characteristics", this is only in the context of being such that the tool does not stick to the softened film. Since it was considered to have been implicit or certainly obvious that the prior art tools would not stick to a softened film, it is considered reasonable to conclude that they possess "surface characteristics" and "conductivity characteristics" sufficient to allow this. Applicants' argument is therefore unconvincing. Applicant is arguing features of the claims that were not considered to be part of the clear, precise original definition in the specification for "Heat Neutral Pressure Source", such arguments therefore not being considered commensurate in scope with the claims.

It is also argued that Peacock et al. does not teach a kit. It however is submitted that the reference to a "kit" is considered to simply require that the elements have a degree of association such that they are intended to be used together, this thus not considered to define or require any additional structure beyond that shown or rendered obvious by the admitted prior art or Peacock et al. disclosure.

With respect to the 35 USC 102(b) rejections of claim 30, applicant urges in each instance that the references do not suggest a Heat Neutral Pressure Source as this requires that it "not appreciably conduct heat". As noted above, such is not considered to form part of the definition of the Heat Neutral Pressure Source as such is not defined in the specification in a precise definite manner as being intended to also limit the

meaning of the phrase. In other words, the original definition is considered to be restricted to page 5, lines 17-21. If other parts of the specification are to also be read into the claims, how is one to determine what other parts?

With respect to the 35 USC 103 rejection, it is urged that Preisler fails to suggest using heat and thus motivation to make the combination as well as a reasonable expectation of success is lacking. Likewise, with respect to Coe and Sadtler, it is urged that pressure sensitive films and heat are not taught and thus there would be no motivation or reasonable expectation of success. These arguments have been carefully considered but it is still considered that taken as a whole the secondary references evidence and establish that in the art of pressing a film type material (including pressure sensitive films as in Preisler) to an irregular or textured surface, it is a well known and conventional expedient to use a flexible sponge or foam pressing element in order to effect the necessary adaptation of the film to the irregular substrate surface. Further, it is submitted that these teachings would have been understood by the artisan as instructive and applicable regardless of the preliminary processing (e.g. heat) required to allow the film to conform. In other words, it is submitted once the ordinary artisan is taught that foam/sponge pressing means are suitable and effective to press films to irregular surfaces, they would have found it obvious to utilize a foam/sponge type pressing means anywhere a film is to be pressed to an irregular substrate. Again, the preliminary film processing necessary to allow any particular film material to conform does not fundamentally alter the basic teachings/evidence of these secondary references with respect to the known use of foam/sponge pressing means as suitable

Art Unit: 1733

and effective means to press films to irregular surfaces. There is no fundamental incompatibility between pressing an unheated film and a heated one – again, while sticking might be a concern, such is considered to be entirely expected and it is not beyond the skill level of the artisan to assure that materials are used that are low adhesion, such being extremely well known and characterized in the material arts.

As to the rejection of claim 39, it is argued that the Moore is non-analogous and Finke fails to suggest an adhesive coated film, etc. These arguments have been considered but first, it should be noted that the rejection was at first predicated on what was considered to be the *extremely* well known expedient per se of using rollers to apply pressure to effect bonding to a surface (e.g. wall paper rolling; rolling vinyl floors, etc.). The secondary reference were added to establish that it further is also known and conventional, when desiring to effect adherence to a textured or irregular surface, to apply the pressure using a roller that includes a flexible or conformable surface – Moore (note esp. “8”) and Finke (note esp. roller “201”) being exemplary. Additionally, it should be stressed that the prior art included not only discrete tools such as the rivet brush but also tools (e.g. squeegee) for more continuous or elongated irregularities such as ribs. Use of rollers would have been particularly obvious for such elongated irregularities.

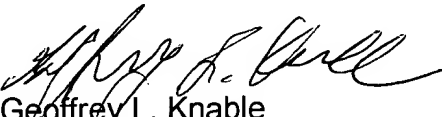
8. Applicant's response necessitated the new ground of rejection (under 35 U.S.C. 112) presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 703-308-2062. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.


Geoffrey L. Knable
Primary Examiner
Art Unit 1733

G. Knable
September 20, 2003